

Minutes, 12/01/04 Tevatron BPM Upgrade Meeting
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The agenda as announced consisted of:

1. Report from Bob and Steve
2. Report from Technical Coordinator -- Jim Steimel
3. Report from subproject leaders
4. AOB

1. Report from Bob and Steve.

- Next week we will cut the meeting short and will go out to Pal Joey's for pizza. Everyone is welcome.

2. Report from Jim Steimel, Technical Coordinator

- Jim reports that the hardware was installed in A3 last week Tuesday (November 23). Since that time various parts of the system have been back and forth to Feynman due to debugging of problems seen in the system. Some of this was traced to the fact that the TCLK signals that were used on the test stand in FCC came from a simulator rather than from the real clock system. This created different numbers and types of signals and this caused behavior that was sorted out on Monday morning. The teststands in FCC are now using the proper TCLKs.

- Many code changes have been made by Luciano to allow the setup in A3 to properly read out the closed orbits. At the time of the meeting the FTP plots were working for the A3 BPMs.

- There is some trouble with TBT measurements and that is being worked out. Also with application programs accessing the data. Also being debugged.

- Activity will continue to bring up the system and make it useful, including diagnostics and application access to the data.

- Jim is working on the second version of the modes of operation note. The update will be to AD doc #860 and it should be uploaded before next Tuesday (request from Margaret).

- Rob Kutschke requested that the data from the BPMs in the A3 house

be data logged. The request is for two of them to be logged at 15 Hz and one on each side at 1 Hz.

- There was an issue with the filter board and the relays getting stuck in a "bad" state. This should be investigated so we understand how the relays are normally managed and put into the correct state.

3. Reports from L2 Managers

Vince Pavlicek:

- The printed circuit boards for the timing card are done and the company is waiting to get into the assembly line. 4-5 boards are promised before Christmas. The testing plan for the timing card needs to be finished, written up and signed off.

- Ken Treptow is discussing some details with the assembly house. The circuit boards should be made soon. Assembly on/after December 13 so we expect to see some or all of the boards by Christmas. Same issue as above with the timing card -- a testing plan for the filter boards needs to be finished, written up and signed off.

- Some issues with the very stiff short cables that carry the clock/trigger signals. The proposal is to replace these with more flexible cables. Everyone agreed that this is a fine plan and it will be pursued.

- There was a discussion of interrupts and their levels -- which interrupts are the most important and which ones can be held off. This needs to be sorted out.

Tim Kasza:

- Rick Mahlum continues to test the Echotek boards with the new firmware. So far the testing is going more smoothly than with the previous version of the firmware. Tim's slides can be found in AD doc #1381-v11. There continue to be some DNL failures and these will have to be tracked down, debugged, and the boards either replaced or repaired. There are 58 boards with new firmware that have passed all of the tests. Once the remaining untested boards are tested the already-tested (old firmware) boards need to be upgraded to the new firmware. Tim asked whether they needed to be retested. The first few should be retested and the results checked against the results with the old firmware. Once we look at the comparison of the tests (old firmware vs new firmware on same board) then we can decide whether all of the boards should be retested after their firmware is upgraded.

- All of the cables have arrived. The 36 foot cables will be tested. Bad cables are being sent to CASCOS for replacement.

- Time is working with Vince, Bill, Ken to get the testing for the filter and timing boards set up.

Rob Kutschke:

- Rob is continuing to work on the calibration issues, including differential attenuation and its effect on the position measurement. It may be possible to use constraints coming from operating the accelerator to measure some of the parameters.

Margaret Votava:

- 1st turn measurement is ready to go. Some problems with state devices - working with controls to sort it out.

- Luciano will be away Christmas week.

Brian Hendricks:

- The database script to switch the A3 house (or any house) from the old to the new system is finished.

- W25 diagnostic mode doesn't work properly yet. Working with Luciano to fix it.

- Some errors for structured devices.

- Lin Winterowd is working on T39.

4. AOB.

- Will meet Thursday, December 2 at 1:30 to discuss calibration and new results from Gustavo and Eric.

- We had a discussion of when we are planning to put the B3 crate into the Tevatron. Given the current hardware schedule and people schedule the best guess is that the week of January 3, 2005 is the target.